



UNITED STATES PATENT AND TRADEMARK OFFICE

21 -9
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/289,208	04/09/1999	CHARLES A. HOWLAND	W0490/7007/R	8331

7590 12/03/2001

RANDY J PRITZKER
WOLF GREENFIELD & SACKS
600 ATLANTIC AVENUE
BOSTON, MA 02210

EXAMINER

GUARIELLO, JOHN J

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 12/03/2001

9

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-9

Office Action Summary

Application No.	Applicant(s)
691289208	Howland
Examiner John Guarniello	Group Art Unit 1721

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- Responsive to communication(s) filed on 8/29/2001
- This action is FINAL.
- Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- Claim(s) 1-8 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- Claim(s) _____ is/are allowed.
- Claim(s) 1-8 is/are rejected.
- Claim(s) _____ is/are objected to.
- Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The proposed drawing correction, filed on _____ is approved disapproved.
- The drawing(s) filed on _____ is/are objected to by the Examiner.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All Some* None of the CERTIFIED copies of the priority documents have been received.
- received in Application No. (Series Code/Serial Number) _____.
- received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Attachment(s)

- Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ Interview Summary, PTO-413
- Notice of Reference(s) Cited, PTO-892 Notice of Informal Patent Application, PTO-152
- Notice of Draftsperson's Patent Drawing Review, PTO-948 Other _____

Office Action Summary

Art Unit: 1771

DETAILED ACTION

15. The Examiner acknowledges papers # 6-8 the extension of time, the amendment to the claims, and the specification, clarifying the parent history of the application, and the terminal disclaimer filed 8/29/2001.

16. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Double Patenting

17. The terminal disclaimer filed on 8/29/2001 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 5,837,623 has been reviewed and is accepted. The terminal disclaimer has been recorded.

18. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir.

Art Unit: 1771

1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

19. Claims 1-8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 5,565,264. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the warp and fill yarns of the protective fabric of '264 motivated with the expectation that the warp and fill (weft) yarns could be adjusted as to the tightness of the weave so as to provide improved properties of puncture resistance and ballistic protection since this would be routine in the anti-

Art Unit: 1771

ballistic art as noted in the claims of '264, see claim 12. This rejection is applied since applicant clarified history in the amendment to the specification.

Claim Rejections - 35 USC § 102

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Dunbar et al. 5,579,628.

Dunbar describes entangled multifilament yarn made from high strength filaments with a tenacity of at least 7 g/d, (see abstract). Dunbar describes a tensile modulus of at least 150 g/d and an energy-to-break of at least 8 J/g, (see abstract). Dunbar describes the yarn is used to make ballistic resistant

Art Unit: 1771

articles (like a protective fabric substrate for protection against puncture penetration and/or ballistics), (see abstract). Dunbar describes an entangled multifilament yarn that can be used for ballistic resistant articles, and is sufficiently flexible to wear as a protective garment, (column 2, lines 59-63).

Dunbar describes the entangled yarns can be used to make various textile articles, like woven, knit fabrics or nonwoven, (column 7, lines 35-37).

Dunbar describes high strength filaments in either the warp or fill direction, (column 7, lines 56-60). Dunbar describes the filament in one direction (e.g. the warp) may be of a different tenacity, modulus, filament number, filament or total denier, twist than the filament used in the other direction, (e.g. the fill). Dunbar describes the essential limitation of the claimed invention.

Claim lacks novelty.

Claim Rejections - 35 USC § 103

Art Unit: 1771

20. Claims 1-4, 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunbar et al. 5, 579,628.

Dunbar as in paragraph # 19 above with the exception that Dunbar is silent about the specific difference stated about the denier of the fill yarn is greater than the denier of the warp yarn.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the denier of the fill yarn to be greater than the warp yarn since Dunbar implies that there is a difference in the warp and the fill yarns, (column 7, lines 56-64), and Dunbar describes modifying the twist of the warp or the fill, (column 9, lines 19-24), this would be expected to be routine in this art to give better properties of penetration resistance. This proportional balancing would give better results of protection for puncture resistance and ballistic resistance, see In re Boesch, 617 F2d. 272, 205 USPQ 215 (CCPA 1980).

Art Unit: 1771

Applicant's arguments regarding the perpendicular relationship of the respective layers in Harpell has been considered, but are moot since there are new grounds of rejection.

The intended use clause found in the preamble is not afforded the effect of a distinguishing limitation unless the body of the claim sets forth the structure which refers back to, is defined by, or otherwise draws life and breath from the preamble. Thus, the preamble is given little or no patentable weight.

21. Claims 1, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunbar et al. 5,579,628 in view of Harpell 4,403,012.

Dunbar as above in paragraph # 20 except it is silent about the kind of coating of the fibers for the protective substrate.

Harpell '012 describes ballistic resistant fabric article with coated fibers, which coated fibers can be epoxy resins among others, (column 3, lines 44-68). '012 describes the coatings can be epoxy resins in composites or other ballistic resistant materials, (column 4, lines 15-60).

Art Unit: 1771

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the epoxy coating of Harpell '012, for the resin matrix impregnated or coated fabric of Dunbar motivated with the expectation that the properties of puncture resistance and ballistic resistance would be improved with the epoxy coating for the resulting fabric. This rejection is applied since claim 9 was cancelled but claim 5 is similar to claim 9.

22. Rejections not maintained are withdrawn because of the proper terminal disclaimer submitted, claim 9 was cancelled, and because new art has been applied.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Guarriello whose telephone number is (703) 308-3209. The examiner can normally be reached on Monday to Friday from 8 am to 4 pm.

Art Unit: 1771

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris, can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



John J. Guarriello:gj

Patent Examiner

November 9, 2001

November 19, 2001



TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700